C4725-1

The business magazine of the farm and industrial equipment industry JANUARY 1985

Finding Time for Management Decisions page 32

Those

IMPLEMENT & TRACTOR
Editorial, advertising
and circulation correspondence
should be addressed to:
9221 Quivira Rd.
P.O. Box 12901
Overland Park, Kan. 66212
(a suburb of Kansas City, Mo.)
Telephone (913) 888-4664
Telex: 42-4156; Answerback
Intertec OLPK

EDITORIAL
Bill Fogarty, Editor
Scott R. Nesbitt, Managing Editor
Irma Allread, Associate Editor
Kevin Callahan, Art Director
Anita Blattner, Graphic Designer
Pat Blanton, Editor, Product File
Jim Baumberger, Editor, Red Book

Contributing Editors:
Frank Buckingham, Agricultural Engineering
Glenn S. Heneley, Dealer Topics
Michael Williams, Western Europe

CIRCULATION
John Amet, Director
Evelyn Rogers, Manager
Dee Manios, Reader Correspondent

ABP A member of American Business Press

ABC A member of Audit Bureau of Circulation

ADVERTISING
Ron Wall, National Sales Manager
Merlyn Brown, Marketing Services Manager
Susan Birnbaum, Marketing Coordinator
Gloria Shanahan, Production
(Regional advertising sales offices listed on ad index page.)

ADMINISTRATION
R. J. Hancock, President
John Wickersham, Publisher

IMPLEMENT & TRACTOR (USPS 461-750), with which is combined Farm Implement News, is published monthly except in January and March, when two issues are published, by INTERTEC PUBLISHING CORP., 9221 Quivira Rd., Overland Park, KS 66215 (a suburb of Kansas City, Mo.).

Subscription information: Implement & Tractor is edited for persons in the farm and industrial equipment industry who function in the areas of retail sales and service, distribution sales and service, marketing, engineering, financing, manufacturing and general management. Subscription prices to qualified subscribers: U.S. one year—$10, two years—$15; elsewhere including Canada, one year—$17, two years—$25. Overseas airmail—$60 extra per year. Subscription prices to all others: U.S. one year—$34, two years—$65; elsewhere including Canada, one year—$39; two years—$78. Single copies, $2, except Annual Statistical Number, $4; Product File issue, $5; Red Book issue, $5. Adjustment necessitated by subscription termination at single copy rate. Extra charge for service on back issues. Allow 6-8 weeks for change of address and new subscriptions.

Photocopy rights: Permission to photocopy for internal or personal use is granted by Intertec Publishing Corp. for libraries and others registered with the Copyright Clearance Center (CCC), provided the base fee of $2.00 per copy of article is paid directly to CCC, 21 Congress St., Salem, MA 01970. Special requests should be addressed to John Wickersham.

ISSN 0019-5863 $2.00 + 0.00

INTERTEC PUBLISHING CORPORATION

Implement &Tractor

The business magazine of the farm and industrial equipment industry.

January 1985 • Vol. 100 • No. 1

20th Engineering Concepts Issue

The Nebraska Tests

8: **What Are The Tests? How Are They Used?** The first piece in a five-part series that takes an in-depth look at the tests that are accepted as the worldwide standard for tractor comparison.

10: **How to Read a Nebraska Test.** Using a test report as an example, author Frank Buckingham shows the key data from an actual report.

22: **New Tractors from Case and Versatile.** A look at introductions for the 1985 model year from two manufacturers.

32: **Finding Time to Plan for Tomorrow.** Our Management Modes series examines how long-range planning is worked into the operation of Baldridge Equipment in Colorado Springs, Colo.

34: **The Rumor Mill that Tenneco Built.** Some observations on problems Tenneco created for itself in announcing the planned merger of J I Case and International Harvester's ag division.

DEPARTMENTS

I&T Update....4
Editor's Notebook....6
What's New....24
Auction Prices....28
Industry in Motion....33
Brown Pages....37
Classified Ads....42
Index to Advertisers....42

©Copyright 1985 by INTERTEC PUBLISHING CORP. All rights reserved.
This publication is indexed in Bell & Howell's Farm & Garden Index.

Second class postage paid at Shawnee Mission, KS 66201.
Postmaster: Return Form 3579 to Implement & Tractor, Box 12954, Overland Park, KS 66212.

I&T Update

November Cleanup: Sales of Most Product Groups Went Up

Pushes to reduce inventory were strong in November, as indicated by the flash report of the Farm & Industrial Equipment Institute. Tractor unit volume was up in all categories except four-wheel-drive models. Combines and other implements were also reported up sharply.

Unit Retail Sales

	November			January-November		
	1984	1983	Pct. Change	1984	1983	Pct. Change
Farm Wheel Tractors:						
2-wheel drive						
Under 40 hp	3,133	2,905	+ 7.8	47,724	43,578	+ 9.5
40-99 hp	2,671	2,523	+ 5.9	35,504	35,541	- 0.1
100-139 hp	812	748	+ 8.6	9,087	13,665	-33.5
Over 140 hp	1,494	1,471	+ 1.6	13,765	12,715	+ 8.3
Total 2-wheel drive	**8,110**	**7,647**	**+ 6.1**	**106,080**	**105,499**	**+ 0.6**
4-wheel drive						
Under 200 hp	79	144	-45.1	1,345	1,842	-27.0
Over 200 hp	145	315	-54.0	2,219	2,783	-21.3
Total 4-wheel drive	**224**	**459**	**-51.2**	**3,564**	**4,625**	**-22.9**
Total All Tractors	**8,334**	**8,106**	**+ 2.8**	**109,644**	**110,124**	**- 0.4**
S-P Combines	1,793	1,271	+41.1	10,544	11,548	- 8.7
Balers (under 200-lb. bales)	334	224	+49.1	8,113	8,866	- 8.5
Forage Harvesters (shear-bar type)	294	205	+43.4	3,379	3,949	-14.4
Mower-Conditioners	493	302	+63.2	12,709	13,834	- 8.1

November in Canada: More Inventory Cuts

Retail sales of tractors were also strong in Canada, according to the Canadian Farm & Industrial Equipment Institute. For November, unit volume went up 77 per cent to 1,817 units. For the year, tractor volume is down 2.4 per cent at 16,259.

Canadian self-propelled combine sales went up 27 per cent in November—216 units; 11-month combine volume was off 8 per cent at 2,486 units.

MF Made a Profit In 3rd Period

Massey-Ferguson Ltd. reported a net profit of $4.4 million (U.S.) in the third period of fiscal 1984 (ended Oct. 31) compared with a loss of $11.9 million a year earlier. Nine-month income was $14.2 million on sales of $1.131 billion; a year before, sales were $1.173 billion and losses $41 million.

Fourth quarter sales this year were $359 million, down 2.7 per cent. In North America, sales were $133 million for the quarter (off 6.7 per cent) and $411 for the year to date, up 3.7 per cent.

Deere's '84 Sales: $4.4 Billion, Up 11%

Deere & Co. sales for fiscal 1984, ended Oct. 31, hit $4.399 billion, up 11 per cent from 1983's $3.968 billion. Net income was $105 million, compared with $23 million in 1983. In the fourth quarter, net income was $34 million; in the same 1983 period, it was $58 million. Fourth quarter volume was $1.232 billion, up 12 per cent from 1983's $1.102 billion.

Deere has announced its intention to cut worldwide production in 1985 to slightly below its 1984 output; in North America, schedules for farm equipment are below the level of estimated 1985 retail sales and "significantly lower than actual 1984 output."

Worldwide farm equipment sales were $3.5 billion, up 6 per cent; industrial equipment sales went up 37 per cent to $894 million.

Trade receivables (mostly dealer inventories) ended the year at $2.847 billion, compared with $2.724 billion a year earlier.

Amerequip Is Formed From 3 Shortliners

Three shortline farm/industrial equipment companies have been consolidated as Amerequip Corp., owned by an investor group headed by Richard H. Lytle and based in Chicago.

The companies are Arps Mfg., Inc., New Hortein, Wis.; Schwartz Mfg., Inc., Sioux Falls, S.D., and Lester Prairie, Minn.; and Brantly Mfg. Co., Frederick, Okla. They will continue to operate as separate manufacturing units, according to Lytle.

The Lytle group acquired Arps in the first quarter of 1983, Schwartz late in 1983 and Brantly in early 1984.

Briefly...

Construction equipment distributors have predicted a 10 per cent increase in gross sales for the first half of 1985, according to Associated Equipment Distributors, Oak Brook, Ill. In 1984's first nine months, the group's gross sales were up 26 per cent over 1983. Item forecasts: wheel loaders, loader-backhoes, pavers, compaction equipment, up a median 10 per cent; hydraulic excavators, portable generators, up 12.5 per cent; pumps, up 14.5 per cent.

Deere & Co. is transferring administrative sales functions of its Memphis branch to branches in Dallas and Atlanta, keeping the parts and wholegoods warehouse.

Brazilian Tillage Tool Imports Under U.S. Investigation

The U.S. Dept. of Commerce is investigating imported tillage equipment from Brazil to determine if "upstream subsidy" provisions of a recently passed U.S. law have been violated.

Earlier, the Commerce Dept.'s International Trade Administration had been petitioned by three U.S. manufacturers, Ingersoll Products Corp., Chicago, Ill.; Empire Plow Co., Cleveland; and Nichols Tillage Tools, Inc., Sterling, Colo., claiming that they had been materially injured by Brazilian tillage equipment imports as a result of subsidies as defined under U.S. law.

The ITC has said that the petition contained sufficient grounds on which to initiate a countervailing duty investigation. The petitioners alleged that Brazilian manufacturers and exporters receive an upstream subsidy through the purchase of subsidized inputs of steel as well as subsidization of exports.

The Brazilian firms named in the petition as producing and exporting the tillage equipment alleged to be subsidized are Baldan Implementos Agricolas, S.A., Matao; Marchesan Implementos E. Maquinas Agricolas Tatu S.A., Sao Paolo; Pirantininga Implementos Agricolas S.A., Passo Fundo; and Metisa Metalurgica Timboense S.A., Timbo.

The Commerce Dept. has stated that it will make its preliminary determination in the matter June 4.

Can Parts Produce Profit?

Parts managers from FIEI companies were challenged at the latest parts conference to lower their operating costs to enhance their contribution to corporate earnings.

By Scott R. Nesbitt

■LIKE THEIR dealers, farm equipment manufacturers are finding the parts department is the last great hope for making a profit.

That was the major theme sounded during the fifth annual FIEI parts committee meeting, Nov. 6-9, in Kansas City.

"Parts distribution costs are too high by 10 per cent of the sales dollar," declared James R. Davis, an analyst with Herbert W. Davis & Co., the distribution consultants who maintain the FIEI parts committee survey and data base.

"This means if your organization does $100 million a year in parts, you could bring in an extra $10 million in profit. That could mean 2½ per cent of total company revenue. That kind of contribution to corporate performance could bring you to stardom," Davis told the 100 assembled parts managers from all segments of the farm and industrial machine business.

Like other speakers at this and previous conferences, Davis criticized the traditional farm industry approach to serving customers' demands immediately.

"You don't want to make your customer ecstatically happy," Davis summarized, "you just want to keep him satisfied."

The Davis report on distribution confirmed the findings of previous reports—service to customers is very good, and costs of doing business that way are too high.

Davis said there was some problem with comparing 1984 data with that of previous years because only half the 1984 participants were contributors in 1983. This makes it hard to measure change in the performance of the industry between those two years.

Comparability of data for the FIEI farm equipment division was good because almost all 1983 respondents also joined the 1984 survey. It was changes in participation in the other two divisions that skewed the results for the overall industry survey.

Comparative Operating Costs

FIEI companies versus industrial parts and transportation equipment parts companies

	FIEI	Ind. Parts	Trans. Equip. Parts
Percent of Annual Net Sales			
Transportation—internal	1.82	1.61	1.14
Transportation—to customers	1.28	3.17	2.10
Warehousing	7.44	1.67	2.88
Customer service	1.86	0.98	0.93
Administration	3.65	0.28	0.83
Inventory carrying	8.50	2.46	3.95
Packing & identification	0.97	0.28	1.03
Total Percent of Sales	25.52%	8.64%	10.57%
Cost Per Hundredweight			
Transportation—internal	$ 8.86	$ 3.42	$ 3.01
Transportation—to customers	5.37	11.02	6.17
Warehousing	33.91	10.63	9.21
Customer service	9.20	12.90	3.96
Administration	16.43	3.35	2.67
Inventory carrying	41.99	33.93	13.32
Packing & identification	3.85	0.48	3.56
Total Costs	$119.61	$71.71	$34.70
Volumes			
Thousand CWT	265	673	318
Million sales $	90	157	88
Average Sales $/lb.	4.56	8.81	3.34
Average number of plants & warehouses	6	4	3
% Delivery paid by customer	64	8	24

Total Costs Are Not Additive

Source: Herbert W. Davis & Co., FIEI Parts Committee 1984 physical distribution data base report.

Costly comparisons

To show how traditional policies have cut parts profitability of FIEI member companies, the Davis report drew comparisons of the FIEI data against roughly comparable industries—industrial parts and transportation equipment—where end users demand rapid parts service, and where something akin to the same distribution network exists.

For the FIEI, the report says, distribution costs ate 25.52 per cent of net annual sales, compared with 8.64 per cent for industrial parts and 10.57 for transportation equipment. On the basis of cost per hundredweight shipped, the FIEI companies spent $119.61, against $71.71 for industrial parts and $34.70 for

(Continued on page ME-9)

Parts Profits

(Continued from page ME-2)

transportation equipment.

"There are some obvious differences in the nature of the things you ship, and the geographic spread of your customers, but the comparison is still highly valid," Davis said.

Davis said the 1984 survey data showed the FIEI Farm Equipment Division (FED) had higher operating costs than the Industrial-Construction Equipment Div. (ICED) and the Agricultural Equipment Div. (AED), but even the best of those divisions did not match operating efficiency of some non-FIEI industry groups.

"You have a greater average number of facilities (parts) warehouses) than any but the grocery industry," Davis said.

"The targets are apparent. First, you need a reduced number of warehousing locations, to get decreased warehouse expense and decreased cost of inventory. Second, you need a reduced level of customer service and administrative costs."

The 1984 survey data show that when the number of warehouses goes down, turnover goes up. One company with 18 warehouses had less than one turn per year, while another with four warehouses achieved three turns per year.

Another portion of the survey shows that warehouse cost as a per cent of sales dollar drops as the number of shipping points drops.

In both those survey sections, though, there were some companies that bucked the general trend, particularly in the cost-versus-number of shipping points study.

Call for less service

Davis told the parts managers they must reduce the level of customer service and the associated administrative costs, and noted that FIEI member companies have higher costs for service than any other industry Davis & Co. studies.

The same note was sounded by keynote speaker David Koentopf, president of Steiger Tractor, who said, "We in the agricultural parts business feel we have to serve the customer's needs at all costs, and that gets very expensive."

Davis called on the managers to rationalize parts distribution in terms of contribution to profits, market share, and long-range corporate objectives.

"The renewal parts distribution strategy of the typical company is becoming more recognized and visible to general management," Davis said. "There is a growing revenue share from renewal parts operations, and a realization of the potential improvement in profit contribution by the renewal parts functions.

"There is growing management realization that service parts response to customer service requirements is vital to the success of future equipment placement."

The result of this growing awareness, he said, is a tendency to adopt a "proactive" response to parts, rather than a "reactive" strategy.

"The industry has tended to go on history, fiat, or other themes that might not necessarily be what's needed for the company. What is needed is a distribution and marketing review of practices that bear upon both distribution cost and service, and development of distribution/logistics strategies in time frames, for the short term, the intermediate future, and the long range."

The long range goal, he said, should be an effective system that has flexibility to respond rapidly to changing market needs.

The big questions

In concluding his statistical report, Davis posed a number of questions to be considered by the parts managers and their corporate bosses.

"Are there company strategies to retain or gain share of the parts market?" he asked, noting that the share of the replacement parts dollar held by OEMs may be as low as one third of total volume.

"If distribution costs are too high by 10 per cent of the sales dollar, may this lead to pricing basic parts at a disadvantage?

"Something like 60 per cent of OEM parts are purchased. Is there, in your company, a value sourcing program to allow competitive pricing at the retail level?

"In general, are you applying industrial engineering to the practices and procedures of your parts operation? Are the things you do paying off?"

I&T

New Literature

Brochure WIC-003-84 describing the Wichita Mechanical Power Take-Off, which transmits and disconnects power from industrial heavy-duty diesel engines, is now available from the **Power Transmission Sales Div., Dana Corp.**

Write In (70) on Reply Card

Linde BMF fixed displacement, bent-axis piston motors are described in catalog H-93 from **Commercial Shearing, Inc.**

Write In (71) on Reply Card

Leeson Electric Corp.'s expanded line of Farm Duty Motors is described in a bulletin now available.

Write In (72) on Reply Card

Dynapower Corp. has published a brochure covering its Locveyor belt/pulley tracking system.

Write In (73) on Reply Card

Hansen Coupling Div., Tuthill Corp., has issued its catalog #84-3 of one-way shut-off couplings, which includes a reference guide for coupling selection.

Write In (74) on Reply Card

Eaton Corp., Axle & Brake Div., has released a new parts publication (EB-74) on its 12,000 through 22,000-lb. non-driving steer axles.

Write In (75) on Reply Card

Custom molded parts that can withstand temperatures to 500°F are described in a brochure issued by **Disogrin Industries Corp.**

Write In (76) on Reply Card

Gilian Instrument Corp. is offering a brochure describing a series of modular air pumps for typical air and mixed gas usage.

Write In (77) on Reply Card

Nichols Portland Div., Parker Hannifin Corp., is offering a comprehensive technical handbook describing gerotor advantages in fluid transfer applications.

Write In (78) on Reply Card

USE I&T's HANDY REPLY CARD

AUCTION PRICES OF USED EQUIPMENT

An exclusive I&T monthly report of actual prices paid recently at these leading national wholesale auctions.

Asterisk beside tractor price indicates highest bid offered on tractors which were not sold.

YODER & FREY, INC.
Archbold, Ohio
November 13, 1984

FORD TRACTORS

8N, 1952 (Fair) 1175
8N, 1948 (Rough) 1175
8N, 1947 (Rough) 1100*
8N, 1947 (Rough) 875
8N, 1952 (Fair) 1350
9N, 1941 (Rough) 700*
9N, 1940 (Rough) 1300*
9N, 1941 (Rough) 1100*
9N, 1940 (Rough) 1050
9N, 1941 (Rough) 700*
9N, Idr., 1942 (Rough) 1175*
9N, 1941 (Rough) 600*
NAA, 1953 (Fair) 1850*
600, 1957 (Fair) 2750
800, 1956 (Rough) 1575
800, 1957 (Rough) 2300
600, 1955 (Good) 1970
871, 1957 (Fair) 1300*
860, 1957 (Fair) 2200
Jub., 1954 (Rough) 1625*
Jub., 1954 (Rough) 1700
Jub., Idr., 1953 (Fair) 1675*
3000 diesel, 1964 (Rough) 2775
4000, 1966 (Rough) 2400
4000, 1965 (Rough) 1650*
4000, Idr., 1965 (Rough) 3200*
5000 diesel, 1971 (Good) 4700*
5000 diesel, 1966 (Good) 3750*
7000 diesel, ... 6800
8000, 1972 (Fair) 3700*
8000 diesel, 1973 (Fair) 4200
8000 diesel, 1972 (Rough) 4100*
8000 diesel, 1971 (Rough) 5100*
9700 diesel, 1978 (Excellent) 12,000*
4600, Idr., ... 7400
860, 1957 (Fair) 2100

CASE TRACTORS

600, 1958 (Rough) 925*
830 diesel, 1965 (Rough) 950
875, 1975 (Good) 3700*
930 diesel, 1966 (Fair) 2500*
930 diesel, 1964 (Fair) 2900
1030, 1969 (Fair) 3700
1030, 1968 (Good) 3300
1070 diesel, 1971 (Fair) 4200*
1070 diesel, 1972 (Rough) 5000
1070 diesel, 1971 (Fair) 8250*
1175 diesel, 1974 (Fair) 5400
1370 diesel, 1975 (Fair) 8250*
2290 diesel, 1978 (Good) 15,000*
2670, (Rough) 10,250*
2670 diesel, (Fair) 11,750*
2670 diesel, (Fair) 10,250*

DAVID BROWN TRACTORS

950, 1965 (Rough) 550*
990, 1967 (Fair) 1950
1200 diesel, 1968 (Fair) 2800*

JOHN DEERE TRACTORS

A, 1947 (Rough) 450*
A, 1946 (Rough) 150
G, 1950 (Fair) 510*
LA, 1949 (Fair) 700
70, (Fair) 525
300, (Fair) 2800*
620, 1958 (Fair) 1300*
720, 1957 (Rough) 1050
730 diesel, 1957 (Fair) 2400*
820, 1959 (Fair) 2500
2020 diesel, 1971 (Rough) 2200
2030, 1975 (Good) 4525
2440 diesel, 1979 (Good) 5550
2940, 4WD, 1980 (Fair) 13,850
3010, 1964 (Fair) 2500*
3010 diesel, 1963 (Fair) 3400*
3010, 1964 (Fair) 3100*
3020 diesel, 1968 (Fair) 5500*
3020 diesel, 1965 (Fair) 4250*
3020, 1967 (Good) 4200
4000 diesel, 1968 (Fair) 6200*
4010 diesel, 1963 (Fair) 3100*
4010 diesel, Idr., 1964 (Good) 4450
4020, 1966 (Fair) 4500
4020 diesel, 1967 (Rough) 4100
4020 LP, 1968 (Rough) 2750*
4020 diesel, 1966 (Fair) 5600*
4020 diesel, 1966 (Good) 6500
4320 diesel, 1973 (Good) 8800
4430 diesel, 1975 (Fair) 7500*
4620 diesel, 1973 (Good) 8000
5020 diesel, 1970 (Good) 6000*
2950, 1983 (Excellent) 14,000

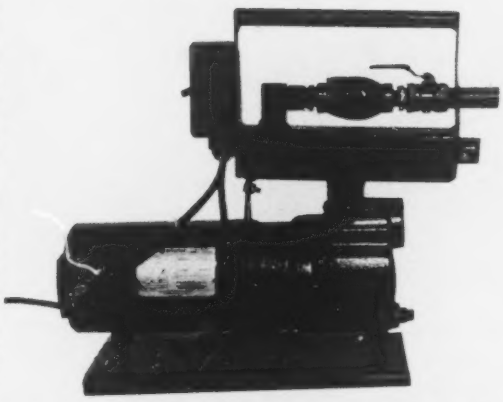
FERGUSON AND MASSEY-FERGUSON

TO-30, 1951 (Fair) 1050*
20, Idr., ... 3550
50, 1963 (Fair) 1870
50 diesel, 1960 (Fair) 2000*
65, 1963 (Fair) 1475
65, Idr., 1961 (Rough) 1700*
65, cult., 1964 (Fair) 1950*
65 diesel, 1962 (Fair) 2450*
65, 1962 (Fair) 2050
85, 1964 (Rough) 1035
85, ... 810
90 diesel, 1963 (Rough) 1150*
165 diesel, 1974 (Fair) 3000
165, 1972 (Fair) 3600*
175, 1971 (Fair) 4050
180 diesel, 1968 (Fair) 2700*
1085 diesel, 1976 (Rough) 5300*

(More...)

CALCIUM AND LIQUID BALLAST PUMP

ELECTRIC POWERED



PP100 E: Fills at 11 GPM, evacuates at 6½ GPM, ¾ HP 115/230 volt electric motor, 1 Core ejector, 1 Special filling hose, 12 Ft. of HD discharge hose, 10 Ft. of HD Suction hose. A specially designed (patented) casing construction incorporates a combination of dual volute w/a recirculation port.

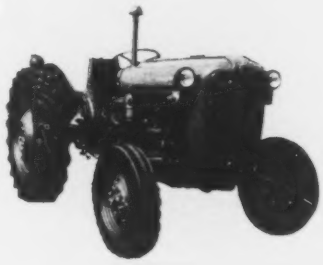
OWENS MANUFACTURING CO.

602 18th St., P.O. Box 940,
Corbin, Kentucky 40701

For more information call R. L. Owens at (606) 528-2330 in Kentucky 800/442-0129. Outside Kentucky 800/626-0184.

Write In (17) on Reply Card

INTRODUCING
IMT 539 Deluxe



Reproduction of Massey-Ferguson 35
Parts Interchangeable

- Live Pto
- Differential Lock
- 3 Cylinder Diesel
- 1 Year Warranty
- Lights & Linkage
- Deluxe Seat

Dealerships Available
Telephone
(214) 539-1942

JKH Equipment

3001 Justin Rd-Flower Mound, Tex 75067 (Dallas Area)

Write In (18) on Reply Card

Auctions *(continued)*

1085 diesel, 1975 (Fair) 5750
1100 diesel, 1971 (Rough) 2500*
1105 diesel, 1976 (Fair) 6500*
1135 diesel, 1975 (Fair) 5000*
1150 diesel, 1968 (Rough) 3000
1800, (Rough) 6250
1805 diesel, 1977 (Fair) 9300
2705 diesel, 1979 (Fair) 9500*
2705 diesel, 1978 (Excellent) 11,500*

INTERNATIONAL HARVESTER TRACTORS

Sup MD, 1951 (Rough) 525
Sup. A, 1950 (Rough) 1000*
Sup. C, 1952 (Rough) 885
H, 1949 (Fair) 590
H, 1944 (Fair) 450
H, 1952 (Fair) 575*
H, 1947 (Fair) 375*
M, 1947 (Fair) 650
M, ...510
M, 1940 (Rough) 530
M, 1950 (Good) 1250
M, 1943 (Rough) 650*
Sup. M, 1952 (Rough) 900*
Sup. M, ...750
W6, 1949 (Fair) 500
200, 1956 (Fair) 1150*
200, 1956 (Fair) 1450*
300, 1955 (Rough) 950*
300, 1954 (Fair) 750*
340, 1960 (Fair) 1125
340, 1960 (Rough) 1300*
340, 1961 (Fair) 750
460, ...975
460, 1959 (Fair) 1200*
434 diesel, 1967 (Rough) 1600*
560, 1960 (Rough) 1600*
544, Idr., 1970 (Fair) 5200
574, 1975 (Fair) 4200
656, Idr., 1970 (Good) 4500*
656, 1970 (Rough) 3500*
656, 1969 (Rough) 4150
684 diesel, 1976 (Fair) 4500*
706, 1963 (Fair) 2800*
706 diesel, 1964 (Fair) 3100*
756, 1968 (Good) 6200*
756, 1970 (Good) 3300
806, 1965 (Fair) 3900
806, 1966 (Rough) 2100
856 diesel, ...6250
856 diesel, 1969 (Fair) 3900*
966 diesel, 1974 (Fair) 6750*
966, 1975 (Good) 7300*
986, 1977 (Good) 11,250*
986, 1979 (Good) 10,500*
1066, 1972 (Good) 7500*
1066, 1974 (Fair) 7100*
1066, 1974 (Fair) 7600*
1066, 1976 (Fair) 8100*
1066, 1974 (Fair) 7100*
1086, 1978 (Fair) 12,000
1086, 1978 (Good) 11,250*
1206, 1966 (Fair) 5750
1206, 1965 (Fair) 4750*
1256, 1970 (Good) 6000*
1456, 1970 (Fair) 5600*
1456, 1968 (Fair) 5400*
1466, 1974 (Good) 8000*
1486, 1971 (Good) 7100*
1486, 1979 (Good) 13,500*
1566 diesel, 1975 (Fair) 6500

WHITE TRACTORS

2-105 diesel, (Rough) 6000*
2-105, (Good) 7800*
2-155 diesel, 1979 (Fair) 13,250*
4-150, (Fair) 9000*

MINNEAPOLIS-MOLINE TRACTORS

445 diesel, 1962 (Rough) 650*
UB, ...130

COCKSHUTT TRACTORS

30, 1946 (Rough) 300

DEUTZ TRACTORS

D5006 diesel, (Rough) 3500*

ALLIS-CHALMERS TRACTORS

B, ...400
D17, 1965 (Fair) 1700
175, 1974 (Good) 3000
190, 1965 (Rough) 2300*
190XT diesel, 1970 (Fair) 3700
200, 1971 (Good) 5200*
210, 1971 (Fair) 4300*
180 diesel, 1970 (Fair) 3000*
7030 diesel, 1976 (Fair) 6550*
7040 diesel, 1976 (Fair) 8000*

OLIVER TRACTORS

77, Idr., ...370
66, 1947 (Rough) 375*
55, Idr., 1954 (Fair) 1225
1600, 1962 (Fair) 2000*
1650 diesel, 1967 (Rough) 2400*
1750 diesel, 1965 (Fair) 3250
1755 diesel, 1973 (Fair) 3900*
1800, 1961 (Rough) 1375
1800 diesel, 1962 (Fair) 2000*
1850 diesel, 1965 (Fair) 3400
1855 diesel, 1972 (Fair) 5200*
1950-T diesel, 1967 (Fair) 4300*
1955, 1972 (Rough) 4500*

MASSEY-HARRIS TRACTORS

44, ...410
44, 1947 (Rough) 325

JONES FARM EQUIPMENT, INC.
Dothan, Alabama
November 13, 1984

ALLIS-CHALMERS TRACTOR

7045 diesel, 1978 (Good) 8000

CASE TRACTOR

430, 1965 (Good) 1650

DAVID BROWN TRACTORS

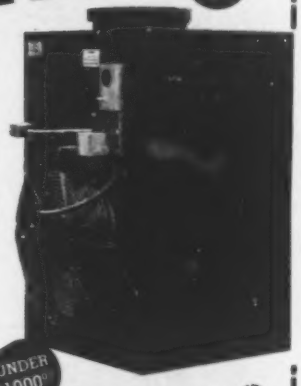
990 diesel, 1972 (Good) 2125
990 diesel, 1966 (Fair) 925

MASSEY-FERGUSON TRACTORS

1135 diesel, 1975 (Fair) 4000*
1105 diesel, 1975 (Fair) 4250
1100 diesel, 1970 (Fair) 2700
1100 diesel, 1968 (Fair) 2400*
1085 diesel, cab, 1975 (Good) 4200
285 diesel, 1975 (Good) 6100*
285 diesel, 1975 (Fair) 4100
245 diesel, 1979 (Good) 5400
230 diesel, 1976 (Excellent) 4100
3165 diesel, Idr., 1967 (Fair) 3000
165 diesel, 1974 (Fair) 3450
165 diesel, 1968 (Fair) 2400*
165 diesel, 1966 (Rough) 1875
135 diesel, 1972 (Good) 3550*
135 diesel, 1972 (Excellent) 3900*
135, 1972 (Excellent) 4000
135 diesel, 1971 (Good) 3200*
135, 1968 (Rough) 1500*
135 diesel, 1968 (Good) 3300
135, 1967, (Good) 3100*
65 diesel, 1961 (Fair) 1100
65 diesel, 1963 (Good) 1800
35, 1962 (Good) 1600*

FREE HEAT

Using Your Waste Lubricants Torrid-200 Cuts Bay Heating Cost to *Almost Nothing!*



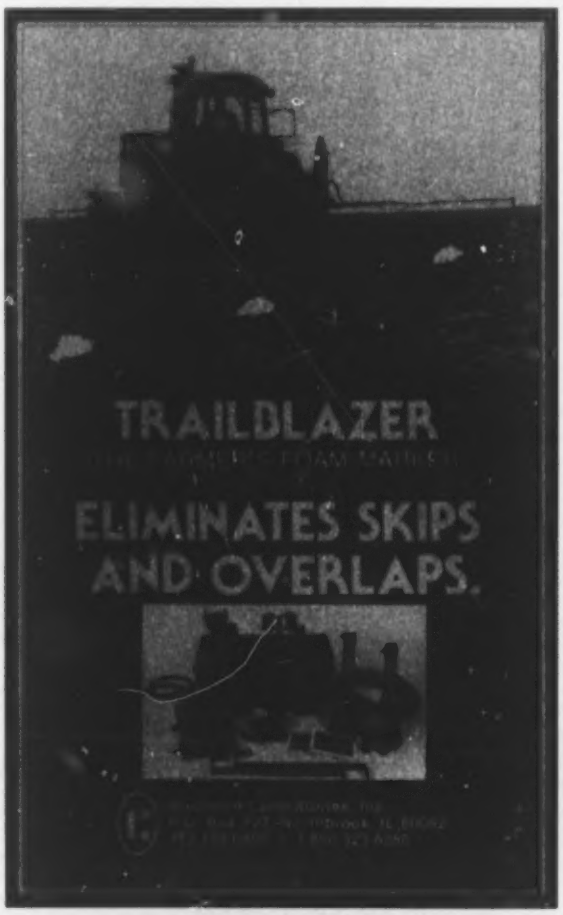
Ideal For: Service stations, auto repair and transmission shops, farm implement stores, barns, farrowing houses...anywhere waste oil is available and heat is needed!

U.L. Approved Controls. Unit Now in Use in Hundreds of Shops, Coast to Coast!

TORRID 200
Be Prepared For Winter...
Call 816-525-3810
Write To: 615 N. Independence, Lee's Summit, Mo. 64063

TORRID-200 Pays For Itself In ONE Winter Season!

Write In (20) on Reply Card



Write In (21) on Reply Card

35, 1959 (Excellent) 2300
TO30, 1953 (Excellent) 1675
TO30, 1952 (Good) 1200

FORD-FERGUSON TRACTORS

9N, 1945 (Good) 1050
9N, 1945 (Good) 1150
9N, 1945 (Good) 1150
9N, 1944 (Good) 900
9N, 1944 (Good) 925*

FORD TRACTORS

9700 diesel, cab, 1977 (Good) 8600*
7000 diesel, 1971 (Good) 4700*
7000 diesel, 1971 (Good) 5000
5000 diesel, Select-O-Speed 1967 (Fair) 3300
5000 diesel, 1966 (Fair) 2900
5000 diesel, 1966 (Fair) 3250*
4600 diesel, cab, 1976 (Fair) 3700
4600 diesel, cab, 1976 (Fair) 3450
4000 diesel, 1966 (Rough) 2000
3000 diesel, 1970 (Good) 3400
3000 diesel, 1969 (Good) 3200
2000 diesel, 1967 (Excellent) 3950
2000, 1970 (Good) 3250
850, 1955 (Good) 1800
850, 1955 (Good) 1825
850, 1955 (Fair) 1350
641, 1958 (Good) 1600*
641, 1958 (Good) 2000
641, 1958 (Good) 1700
Jub., 1953 (Fair) 1475
Jub., 1953 (Rough) 650
Jub., 1953 (Good) 1600
Jub., 1953 (Good) 1700*
Jub., 1953 (Good) 1850*
Jub., 1953 (Fair) 1450
Jub., 1953 (Good) 1900
8N, 1952 (Excellent) 1850
8N, 1952 (Excellent) 1800
8N, 1952 (Excellent) 1725
8N, 1952 (Excellent) 1675
8N, 1952 (Excellent) 1700
8N, 1951 (Good) 1300*
8N, 1951 (Excellent) 1600
8N, 1948 (Good) 1200
8N, 1948 (Fair) 975
8N, 1948 (Good) 1100*
8N, 1948 (Good) 1300*
8N, 1948 (Excellent) 1650*
8N, 1948 (Excellent) 1600*
8N, 1948 (Fair) 1050
8N, 1948 (Excellent) 1875*
8N, 1948 (Rough) 775*
8N, 1948 (Good) 1600*

INTERNATIONAL HARVESTER TRACTORS

1486 diesel, 1977 (Fair) 5200
1486 diesel, duals, 1976 (Good) 7000*
986 diesel, duals, 1977 (Good) 7000*
784 diesel, 1978 (Good) 5350
656 diesel, 1968 (Rough) 1600*
504, 1960 (Good) 1500
B414 diesel, 1963 (Rough) 500
B414 diesel, 1963 (Good) 1500
340, 1959 (Rough) 400
Cub Loboy, mo., 1963 (Excellent) 2000
Cub, 1948 (Good) 1000

JOHN DEERE TRACTORS

5020 diesel, 1967 (Rough) 2500
4630 diesel, 1976 (Good) 8200*
4630 diesel, 1973 (Fair) 6200
4620 diesel, 1972 (Fair) 5250
4430 diesel, cab, 1977 (Good) 9500*
4430 diesel, 1976 (Rough) 5000
4430 diesel, duals, 1976 (Good) 9000
4430 diesel, 1973 (Good) 9250*
4320 diesel, 1972 (Fair) 5950*
4230 diesel, 1975 (Rough) 3200
2840 diesel, 1978 (Good) 6400*
2640 diesel, 1977 (Good) 6400
2640 diesel, 1976 (Good) 5400
2130 diesel, (Good) 4000*
2040 diesel, 1979 (Excellent) 7300
2040 diesel, 1977 (Good) 5000
2020 diesel, 1966 (Fair) 3400*
2020 diesel, 1965 (Fair) 3000
420, 1957 (Good) 1375
M, plow, har., 1952 (Good) 650

LONG TRACTOR

384 diesel, 1970 (Rough) 775

KUBOTA TRACTOR

L185 diesel, 1978 (Rough) 900

OLIVER TRACTOR

500 diesel, 1961 (Rough) 275

NOTES:
Prices reported are for individual sales at wholesale on an "as is," "cash and carry" basis. Prices reported are not averages.

Condition Classifications:

EXCELLENT: Engine in perfect condition, 400 to 600 hours of use. Rubber—80% tread remaining, no breaks or cracks. Paint—original and bright. General appearance: excellent.

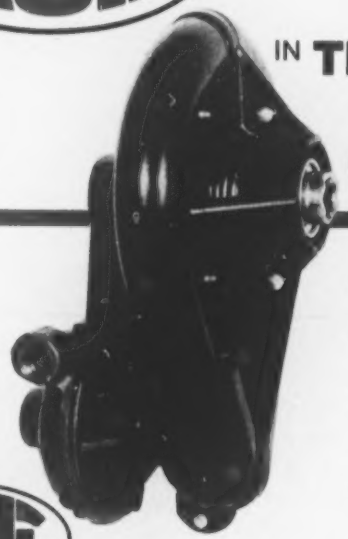
GOOD: Engine in good running condition. Rubber—70% tread remaining, no breaks or cracks. Paint—original or a good repaint job. General appearance: good over-all.

FAIR: Engine possibly in need of a minor overhaul. Rubber—60% tread remaining, some cracking evident in sidewalls. Paint—only fair, weathered and some rust apparent. General appearance: worn, some dents, minor parts (gage covers, etc.) missing or broken.

ROUGH: Engine obviously in need of a major overhaul. Rubber—smooth. Paint—scarred, weathered, rusty. General appearance: dents, ruptures, broken parts, loose wires, components (such as lights) broken, missing or inoperative.

ACE

ACKNOWLEDGED LEADERS IN TRACTOR PTO MOUNTED BELT DRIVEN CENTRIFUGAL PUMPS



- RUGGED CONSTRUCTION
- PROVEN BELT DESIGN
- A MODEL FOR ALL REQUIREMENTS
- MECHANICAL AND GREASE LUBRICATED LIP SEAL MODELS

ACE PUMPS 1650 Channel Ave. • Memphis, Tennessee 38113 • 901/948-8514 • TELEX 534072

Also Manufacturers of CENTRIFUGAL PUMPS • DIAPHRAGM PUMPS • HIGH VACUUM PUMPS • NYLON ROLLER PUMPS • BALL VALVES

Write in (22) on Reply Card